

Features & Capacities | Quick Clean Burner

DUAL FUEL OPTION and OPERATION

The North American 6419 series is the dual fuel version of the Quick Clean burner for firing #2 fuel oil or fuel gas. The fuel gas only 4419 Series Quick Clean burner can be easily converted to a 6419 Series in the field by adding an atomizer and an 1813 Sensitrol™ Oil Valve.

When operating with #2 fuel oil, the atomizer should be operated with a constant 35" w.c. air pressure. During gas operation, use at least 4 psi atomizing air to cool atomizer (full atomizing air may be used); or for extended periods of operation on gas, the atomizer can be partially retracted or completely removed and stored: Use a blanking disk and gasket to seal the burner if the atomizer is removed (see page 7). Use the stop collar on the atomizer assembly to return the atomizer to the correct position when reinstalling the atomizer.

RATIO CONTROL and OPERATION

The 4419 series burner fuel/air ratio can be controlled with a simple cross connected ratio regulator such as the North American 7216 for gas or the 7052 Ratiotrol for fuel oil. Accurate fuel/air flows can be determined by using 8697 Metering Orifices in the fuel gas and air lines.

If furnace temperatures after shutdown rise above 1600°F, pass air through burner to prevent overheating.

CONSTRUCTION

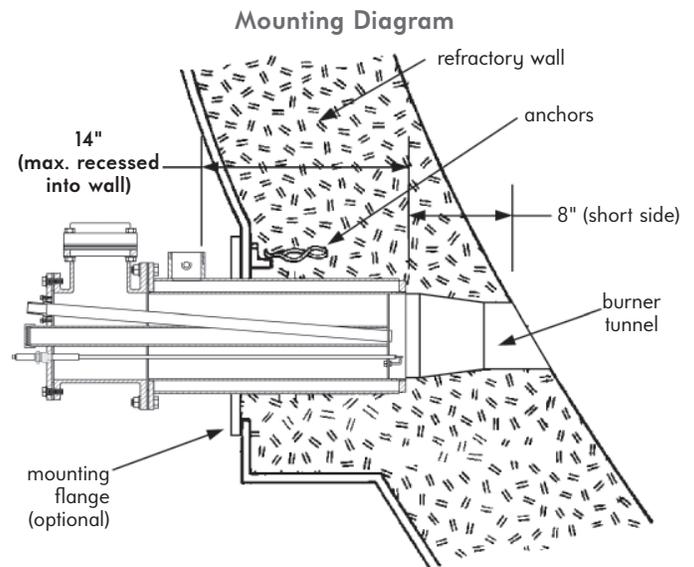
The burner body, backplate and flanges are made from steel, and the body tubes and flame stabilizer from stainless steel. The gas inlet coupling can be rotated independently of the air connection in 45° increments to aid in gas piping.

4419A/6419A UPDATED DESIGN

4419 series burners built after mid 2020 have an updated design and are designated as 4419A/6419A. Several parts have been simplified, but all the input connection dimensions and capacities are the same as the previous design.

The updated parts include:

- Inner and outer body tubes combined into one assembly
- UV swivel mounting plate
- 14 mm igniter with single electrode
- Replaceable igniter ground rod assembly
- Relocated body air pressure tap



Oil Atomizer Pressure/Flow Data

Burner Size	Main Air Capacity (scfh) at various Air Pressures "w.c.					Natural Gas Pressure at 27.7" w.c., 10% XSA
	0.9	1.7	7.0	15.6	27.7	
4419A-6-A	1,400	1,950	5,350	8,300	11,000	5.9" w.c.
4419A-6-B	2,700	3,800	7,600	10,750	16,000	10.4" w.c.
4419A-7-A	3,800	6,700	11,320	16,250	26,300	9.2" w.c.
4419A-7-B	7,200	8,150	15,800	24,500	36,000	12.3" w.c.

Oil Flow gal/hr	Oil Press. psi	Atom. Air at 35" w.c. scfh
28	5.9	255
26	5.4	280
24	4.8	285
22	4.3	320
20	3.9	345
18	3.3	360
16	2.9	370
14	2.4	385
12	2.1	395
10	1.8	410
8	1.5	420
6	1.3	435
5	1.1	435
4	1.0	445
3	0.9	450
2	0.8	460
1	0.65	470

Burner Size	%Excess Air Limits for Gas and (#2 Oil)	%Excess Fuel Limits, Gas and (Oil) 27.7" w.c.	Flame Length Gas and (Oil) Feet 27.7" w.c. Air P. 10% XSA
4419A-6-A	600 (100)	30 (30)	4 (4)
4419A-6-B	400 (100)	0 (30)	4 (5)
4419A-7-A	600 (100)	20 (30)	5 (6)
4419A-7-B	800 (100)	15 (30)	6 (6)

Burner Air Pressure	4419/6419 Minimum Natural gas flow (cfh) for lighting at low fire			
	-6-A	-6-B	-7-A	-7-B
1.7" w.c.	40	60	80	100
0.4" w.c.	20	35	50	75

4419 and 4419A burners have the same capacity and performance.